

Research in and Design of Toilet Supports & Means for Perineal Cleansing



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This presentation Usability studies by URB Delft

- Comfort toilet seats
- Usage & preferences for supports
- Usage & preferences for perineal cleansing

Results of these studies

Implementation of results in FRR designs



The test environment

Do-It-Yourself store Delft



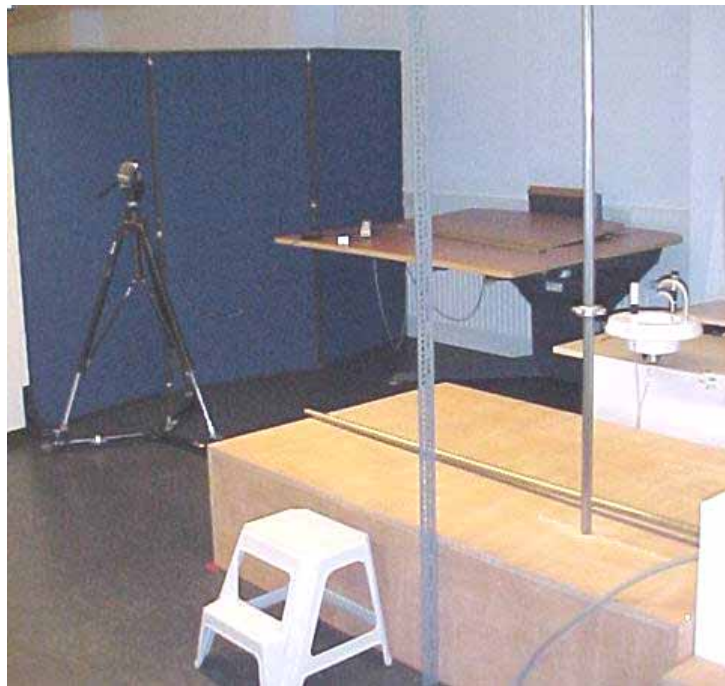


The test environment

Usability laboratory at TUD

Means for perineal cleansing:

- Several types of support
- Model washbasin concept



Pre-test 5 Students

Old age simulation gear

Fine-tune test set-up

Identify possibly strenuous activities

Guarantee safety



Usage different types of supports

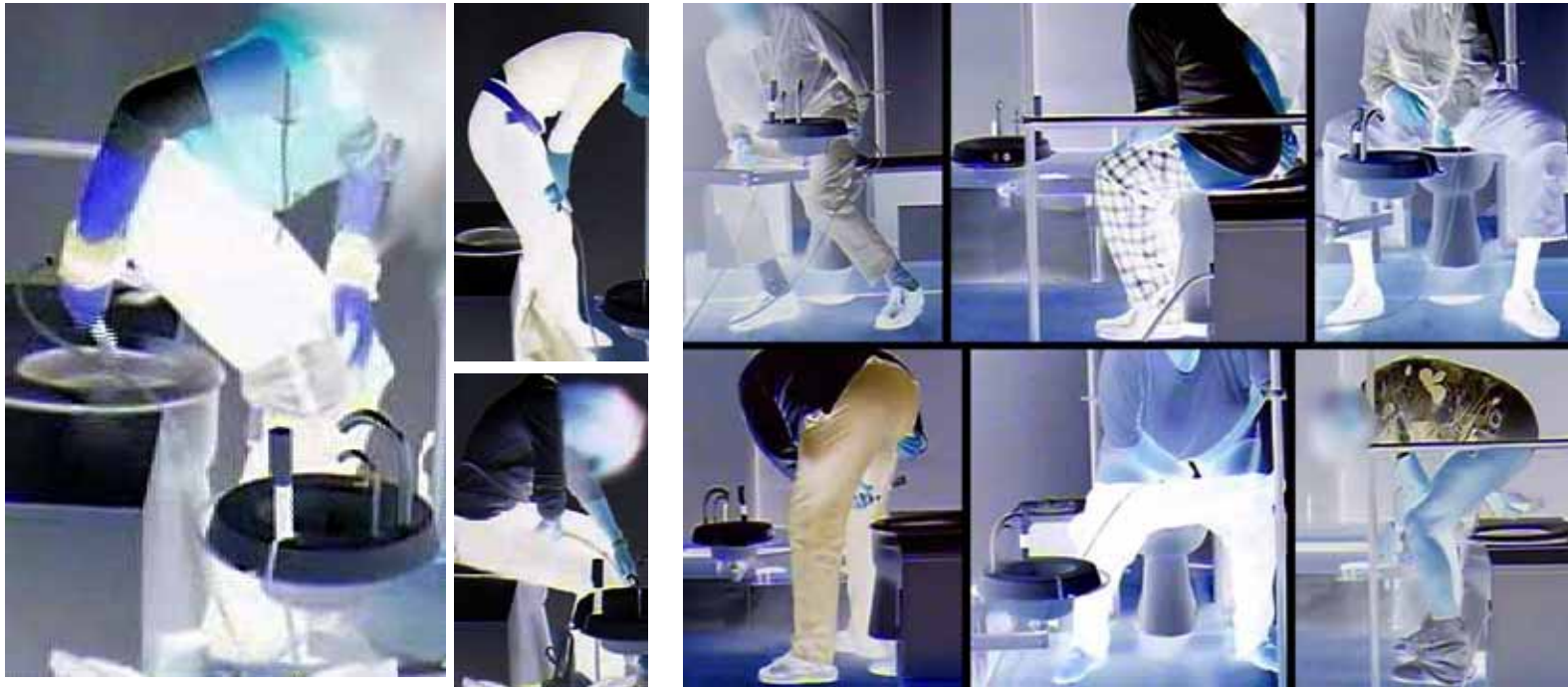
Sitting down
Standing up





Usage means for perineal cleansing

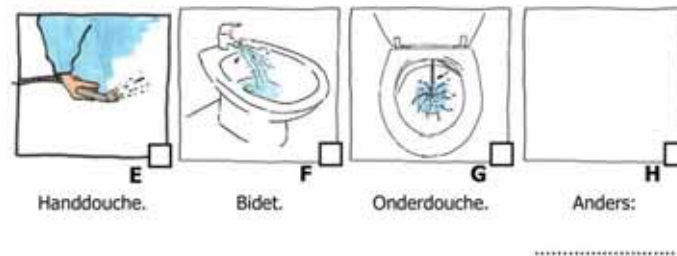
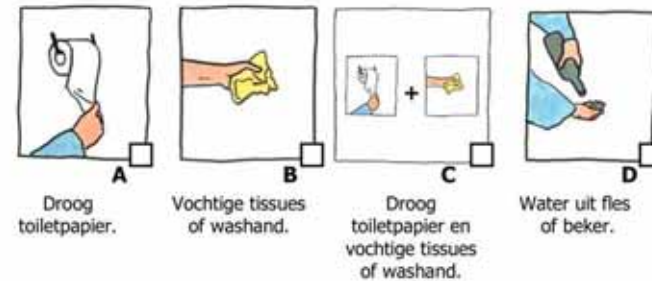
Toilet paper
Sprayer & Blower



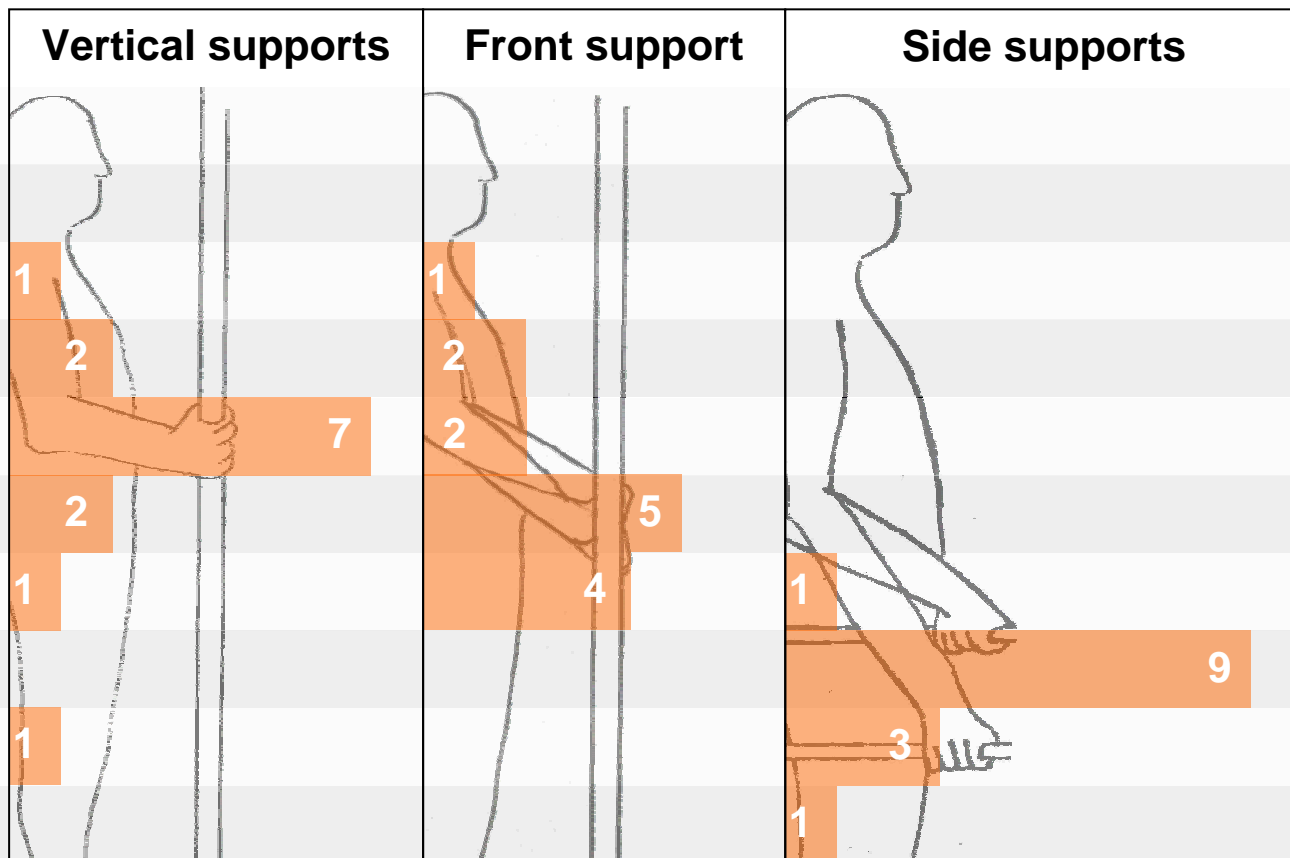
Questionnaires Common toilet postures

Means for perineal cleansing:

- Common used
- Experience
- Preference

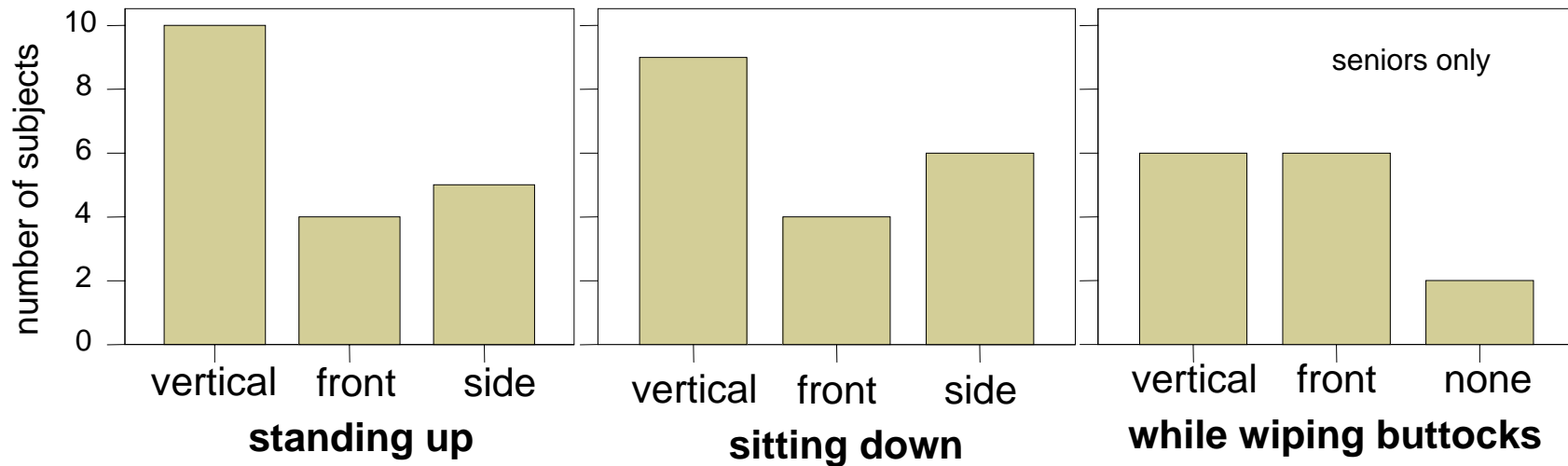


Results Preferences positions per type of support



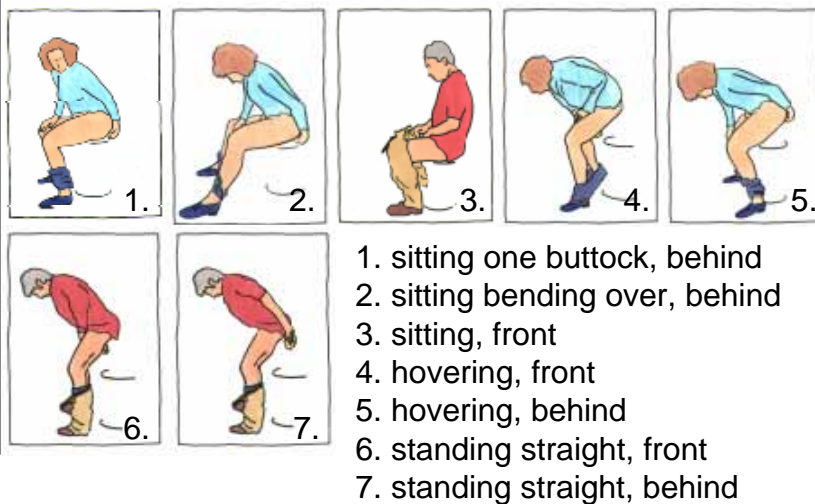
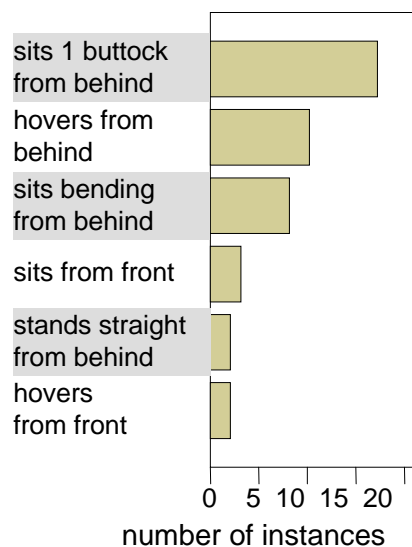


Results Preferences for type of support per activity

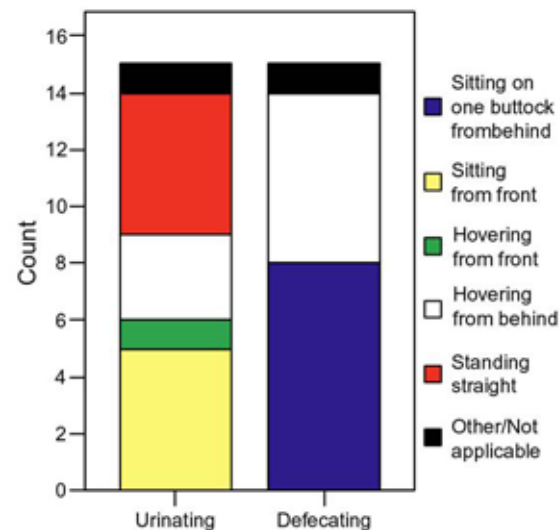


Results Postures perineal cleansing

Observed postures



Declared common postures





**Implementation
results research
in design**

Toilet seat

Transfer surfaces

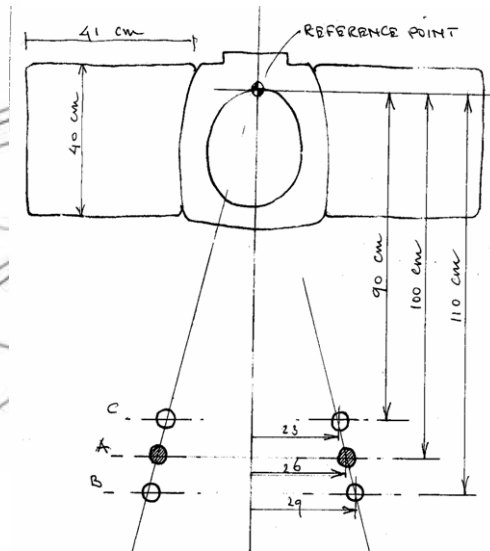
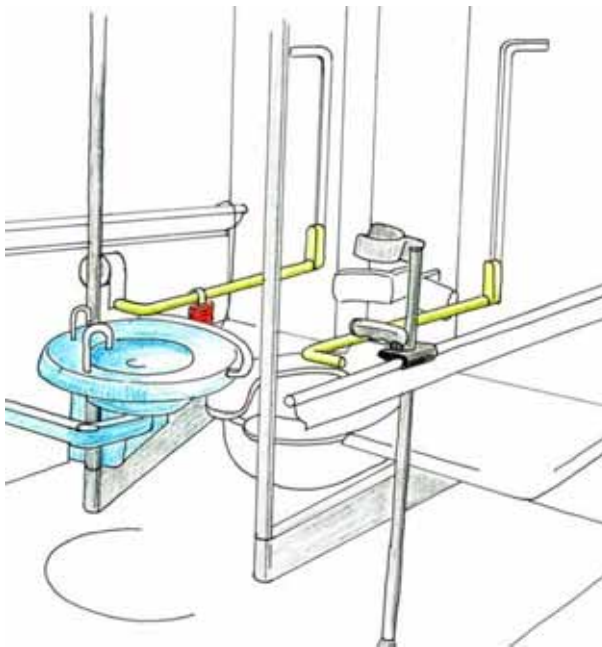




Implementation results research in design

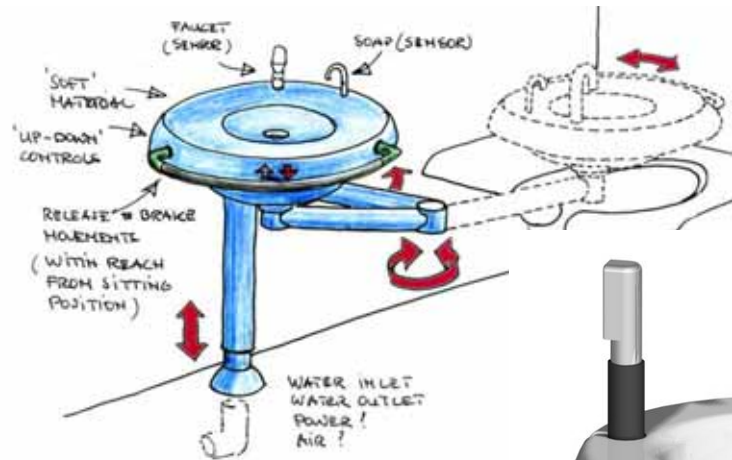
Supports

- Type
- Dimensions
- Location





Implementation Washbasin results research in design





Implementation results research in design

Digital model FRR





Conclusions

Horizontal and vertical supports both valuable

Indications for the range of adjustability of supports

Redesigned washbasin valuable, especially the swivel function

Many hygienic issues remaining

Differences in toilet seat shapes can be perceived

Variations in toilet behaviour

Handling ethical issues of research 'in the toilet'